

REMARKS/ARGUMENTS

Claims 10-22 are pending in the present application after this amendment adds claims 19-22. The new claims do not add new matter and find support throughout the specification and figures. Claims 10-18 stand rejected under 35 U.S.C. § 103(a). It is respectfully submitted that all of the presently pending claims are allowable for at least the following reasons.

35 U.S.C. § 103(a)

Claims 10-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 5,907,540 to Hayashi (the Hayashi reference) in view of United States Patent No. 5,987,024 to Duch et al. (the Duch reference). Applicants respectfully submit that claims 10-18 are in condition for allowance, for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), not only must the prior art **teach or suggest each element of the claim**, but the prior art must also **suggest combining the elements in the manner contemplated by the claim**. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some **suggestion or motivation**, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, **to modify or combine the references** and that, when so modified or combined, the prior art **teaches or suggests all of the claim limitations**. M.P.E.P. §2143. Applicants respectfully submit that these criteria for obviousness are not met here.

Independent claim 10 relates to a bus station for exchanging with other bus stations a communication including a data packet and transmission information. The bus station includes, among other things, an arrangement for storing position information of the bus station in relation to a sequence of bus stations and an arrangement for determining from the transmission information position information of the one of the bus stations that is transmitting. The bus station according to claim 10 also includes an arrangement for, on receiving the communication, determining a time slot belonging to the bus station on the

basis of the position information of the one of the bus stations that is transmitting and the position information of the bus station. The bus station according to claim 10 also includes an arrangement for sending the communication including the data packet after the data packet is received, the communication being sent in a next time slot belonging to the bus station.

The Office Action admits that Hayashi reference does not disclose the feature of an arrangement for “determining a time slot belonging to the bus station based on position information and transmitting the packet in the next time slot belonging to the bus station.” (Office Action; page 3, ll. 2-3). The Office Action alleges that this feature is disclosed in the Duch reference. Applicants respectfully submit that the Duch reference does not discuss, or even suggest, an arrangement for, on receiving the communication, determining a time slot belonging to the bus station on the basis of position information of the transmitting bus station and position information of the bus station. The Examiner cites two distinct discussions in the Duch reference, one apparently relating to a protocol using a frame structure that dedicates particular time slots to particular nodes in a network. (Duch; col. 1, ll. 44-57). The other section cited in the Office Action apparently relates to an arrangement of nodes in a self-synchronizing network. (Duch; col. 2, ll. 45-55). The Duch reference apparently relates to synchronizing a network to avoid errors due to overlapping transmissions between nodes. (Duch; col. 2, line 60 to col. 3, line 8). However, the Duch reference expressly does not relate to a slotted system, but rather to shifting packets to avoid interference. (Duch; col. 3, ll. 6-8). In fact the Duch reference actually teaches away from the present invention by apparently disclosing messages being transmitted periodically (Duch; col. 3, ll. 20-23), rather than in a time slot belonging to the bus station determined on the basis of the position information of the one of the bus stations that is transmitting and the position information of the bus station, as recited in claim 10. The Duch reference therefore does not describe, or even suggest, determining a time slot for sending a communication on the basis of the position information of the transmitting bus station and the position information of the bus station. Therefore, the combination of the references does not render obvious the subject matter of claim 10.

Claims 12-17 depend from claim 10 and are therefore allowable for at least the same reasons as claim 10 is allowable.

Additionally, claim 11 recites that the communication includes a direction vector indicating that a sequence will be run through in one of a first direction and a second direction that is opposite the first direction. The Office Action cites a section of the Hayashi reference apparently discussing a relay station address field being included in a search frame to enable successive relaying of the search frame within a communicable range. (Hayashi; col. 9, ll. 8-16). According to the Examiner, this “indicates a sequence that will be run.” (Office Action; page 3, sec. 4). Applicants respectfully disagree that the cited section of the Stewart reference implies the Examiner’s statement, and further, Applicants submit that statement of the Office Action fails to even assert that the communication includes a direction vector. Modifying a search frame to include a relay station does not disclose, or even suggest, a direction vector, as discussed in the Hayashi reference, and the addition of the Duch reference does not cure this critical deficiency. Therefore, it is respectfully submitted that for at least this additional reason claim 11 is allowable over the references.

Moreover, claim 13 recites, among other things, an arrangement for sending the communication again if no other bus station has repeated the sent data packet. The Office Action cites sections of the Hayashi reference that apparently discuss a flowchart showing the flow of operations when a communication apparatus receives a transmission. (Hayashi; col. 8, ll. 42-46). The Office Action characterizes these sections of the Hayashi reference as determining “if another bus station has previously transmitted the data packet” (Hayashi; col. 8, ll. 42-46). However, this fails to even allege the feature of claim 13 of sending the data packet if no other bus station has *repeated* the sent data packet. It is respectfully submitted that the cited section of the Hayashi reference gives no suggestion of sending a data packet if no other bus station *repeats* the data packet. The flow in figure 6 of the Hayashi reference relates to receiving a data packet and determining if the search frame is being received for the first time. (Hayashi; col. 9, ll. 43-55). Since the references cited do not disclose or suggest the features of claim 13, the combination of the references does not render obvious the subject matter of claim 13.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Hayashi reference in view of the Duch reference and further in view of United States Patent No. 5,369,745 to Faber (the Faber reference). Applicants respectfully submit that claim 18 is in condition for allowance for at least the following reasons.

Appl. No. 09/530,388
Reply to Office Action of April 21, 2004

Claim 18 depends from claim 10; thus, the arguments presented above in connection with the Hayashi and Duch references and claim 10 apply equally to claim 18. The Faber reference does not cure the deficiencies of the Hayashi and Duch references. For at least this reason, the Hayashi reference in view of the Duch reference and further in view of the Faber reference does not render claim 18 obvious.

For at least the reasons discussed above, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to claim 10-18 is hereby respectfully requested.

New Claims


New claims 19-22 depend from claim 10 and are therefore allowable for at least the same reasons as claim 10 is allowable.

CONCLUSION

Applicants respectfully submit that all of the pending claims of the present application are now in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

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